What is claimed is:

1. A method for securing and controlling a micro-mirror, the method comprising:

directly connecting three or more supporting springs to a micro-mirror at selected spaced apart locations to provide a restoring force for each of at least two rotational degrees of freedom of movement of the micro-mirror, where the spring connection locations form a conceptual polygon; and

electro-statically actuating the micro-mirror by three or more spaced apart driving electrodes located adjacent to the micro-mirror, with each driving electrode being independently controlled,

wherein the supporting springs maintain a length-to-thickness ratio selected so that the supporting springs operate primarily in a tensile mode.

2. The method of claim 1, further comprising providing a voltage of less than 100 volts between said micro-mirror and said electrodes.

3. The method of claim 1, further comprising associating at least two enhancement springs with at least one of said supporting springs to enhance stability and to provide a selected tilting range for said micro-mirror.

4. The method of claim 3, further comprising orienting at least one of said enhancement springs perpendicular to said associated supporting spring.

5. The method of claim 3, further comprising fanning out at least one of said enhancement springs from said associated supporting spring with a selected angle to said associated supporting spring.

6. The method of claim 5, further comprising selecting said angle between said supporting spring and at least one of said associated enhancement springs to be between 90 degrees and 180 degrees.

7. The method of claim 3, further comprising configuring at least one of said supporting springs and said associated enhancement springs so that said restoring force between said at least one supporting spring and said micro-mirror increases with a measure u of spring deflection approximately as $a\cdot u + b\cdot u^2 + c\cdot u^3$, where a, b and c are selected parameters.

8. The method of claim 3, further comprising configuring at least one of said supporting springs and said associated enhancement springs so that said restoring force between said at least one supporting spring and said micro-mirror increases with a measure u of spring deflection approximately as $a\cdot u + c\cdot u^3$, where a and c are selected parameters.

9. The method of claim1, further comprising providing said micro-mirror with a frame including dielectric material positioned close to at least one edge of said micro-mirror and positioned between a first material layer that contains said micro-mirror and a second material layer that contains said supporting springs.

10. The method of claim 9, further comprising providing said dielectric material as a discontinuous buried layer.

11. The method of claim 1, further comprising providing one or more neutral electrodes positioned adjacent to said micro-mirror, where the neutral electrodes and said adjacent micro-mirror have substantially the same electrical potential.

12. The method of claim 11, further comprising locating at least one of said neutral electrodes substantially at the center of said micro-mirror.

13. The method of claim 1, further comprising positioning said supporting springs and recessing said micro-mirror so that a net electro-static force generated by said driving electrodes is directed outside of said conceptual polygon when said micro-mirror is in operation.

14. The method of claim 1, further comprising recessing said micro-mirror in at least one selected location to connect said supporting springs thereto to provide a selected tilting range for said micro-mirror.

15. A method for securing and controlling a micro-mirror, the method comprising:

recessing a micro-mirror in at least one selected area; and

directly connecting at least three supporting springs to the at least one recessed area of the micro-mirror at selected spaced apart locations to provide a restoring force for each of at least two rotational degrees of freedom of movement of the micro-mirror, where the supporting springs connection locations form a conceptual polygon,

wherein the supporting springs maintain a selected length-to-thickness ratio so that the supporting springs operate primarily in a tensile mode.

16. The method of claim 15, further comprising electro-statically actuating said micro-mirror by three or more spaced apart driving electrodes located adjacent to said micro-mirror, with each driving electrode being independently controlled.

17. The method of claim15, further comprising associating at least two enhancement springs with at least one of said supporting springs to enhance stability and to provide a selected tilting range for said micro-mirror.

18. The method of claim 17, further comprising orienting at least one of said enhancement springs perpendicular to said associated supporting spring.

19. The method of claim 17, further comprising fanning out at least one of said enhancement springs from said associated supporting spring with a selected angle to said associated supporting spring.

20. The method of claim15, further comprising providing said micro-mirror with a frame including dielectric material positioned close to at least one edge of said micro-mirror and positioned between a first material layer that contains said micro-mirror and a second material layer that contains said supporting springs.

21. The method of claim 20, further comprising providing said dielectric material as a discontinuous buried layer.

22. The method of claim 15, further comprising providing one or more neutral electrodes positioned adjacent to said micro-mirror, where the neutral electrodes and said micro-mirror have substantially the same electrical potential.

23. The method of claim 22, further comprising locating at least one of said neutral electrodes substantially at the center of said micro-mirror.

24. The method of claim 16, further comprising positioning said supporting springs and recessing said micro-mirror so that a net electro-static force generated by said driving electrodes is directed outside of said conceptual polygon when said micro-mirror is in operation.

25. The method of claim 15, further comprising configuring at least one of said supporting springs and said associated enhancement springs so that said restoring force between said at least one supporting spring and said micro-mirror increases with a measure u of spring deflection approximately as $a \cdot u + b \cdot u^2 + c \cdot u^3$, where a, b and c are selected parameters.

26. The method of claim 15, further comprising configuring at least one of said supporting springs and said associated enhancement springs so that said restoring force between said at least one supporting spring and said micro-mirror increases with a measure u of spring deflection approximately as $a \cdot u + c \cdot u^3$, where a and c are selected parameters.

27. A micro-mirror system comprising:

at least three supporting springs connected at spaced apart locations to a micro-mirror to maintain a selected constraint on the micro-mirror, to provide a restoring force for each of at least two rotational degrees of freedom of movement for the micro-mirror, with connection locations of the three of more supporting springs forming a conceptual polygon; and

at least two enhancement springs, fanned out from and connected to each of at least one of the supporting springs, wherein the micro-mirror is electro-statically actuated to rotate and the supporting springs and the enhancement springs operate primarily in a tensile mode.

28. The system of claim 27, further comprising a recess for each of said supporting springs along an exterior of said micro-mirror for connecting said supporting springs so that deflection of said supporting springs allows a selected tilting range for said micro-mirror.

29. The system of claim 27, wherein said micro-mirror has a frame including dielectric material positioned close to at least one edge of said micro-mirror and positioned between a first material layer that contains said micro-mirror and a second material layer that contains said supporting springs.

30. The system of claim 29, wherein said dielectric material is a discontinuous buried layer.

31. The system of claim 27, further comprising at least three spaced apart driving electrodes positioned adjacent to said micro-mirror to control said rotation thereof by applying independently controlled electrical potentials at each of the driving electrodes.

32. The system of claim 31, wherein said supporting springs are positioned so that a net electro-static force generated by said driving electrodes is directed outside of said conceptual polygon when said micro-mirror is in operation.

33. The system of claim 27, wherein at least one of said enhancement springs is oriented perpendicular to said associated supporting spring.

34. The system of claim 27, wherein at least one of said enhancement springs forms a selected angle with said associated supporting spring.

35. The system of claim 27, further comprising one or more neutral electrodes positioned adjacent to said micro-mirror, where the neutral electrodes and said adjacent micro-mirror have substantially the same electrical potential.

36. The system of claim 35, wherein at least one of said neutral electrodes is located substantially at the center of said micro-mirror.